

REMARKS

Claims 35-38 and 40-69 are now pending in the application. The following remarks are believed to be fully responsive to the outstanding Office Action and are believed to place the application in condition for allowance. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the remarks contained herein.

REJECTION UNDER 35 U.S.C. § 103

Claims 35, 37, 42-43, 48, and 50 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshikawa et al. (U.S. Pat. No. 4,506,518) in view of Nagatomo et al. (U.S. Pat. No. 4,494,383) in further in view of Jaster (U.S. Pat. No. 5,435,145).

Claim 49 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshikawa et al. in view of Nagatomo et al. and Jaster as applied to Claim 35 above, and further in view of Alsenz (U.S. Pat. No. 5,035,119).

Claim 47 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshikawa et al. in view of Nagatomo et al. and Jaster as applied to Claim 35 above, and further in view of Takizawa et al. (U.S. Pat. No. 4,962,648).

Claim 44 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshikawa et al. in view of Nagatomo et al. and Jaster as applied to Claim 35 above, and further in view of Tanaka (U.S. Pat. No. 4,634,046).

Claims 36, 38, 40, and 41 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshikawa et al. in view of Nagatomo et al. and Jaster as applied to Claim 35 above, and further in view of Bendtsen (U.S. Pat. No. 5,396,780).

Claims 51-53, 56-57, 59, 61-62, and 65-67 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshikawa et al. in view of Nagatomo et al. and Jaster as applied to Claim 35 above, and further in view of Schaeffer et al. (U.S. Pat. No. 5,440,894).

Claims 54-55, 60, and 63-64 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshikawa et al. in view of Nagatomo et al., Jaster and Schaeffer et al.

Claim 58 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshikawa et al. in view of Nagatomo et al. and Jaster.

These rejections are respectfully traversed.

Applicants respectfully submit that the combination of Yoshikawa, Nagatomo, and Jaster fail to teach or suggest modulating a capacity of a compressor and a position of a valve according to the *same* variable duty cycle control signal to vary a cooling capacity of a cooling system.

The Examiner admits that the combination of Yoshikawa and Nagatomo fails to teach or suggest applying a variable duty cycle control signal to both a compressor and a valve of the system. See the Office Action mailed January 30, 2007 at Page 3. The Examiner asserts, however, that Jaster discloses a refrigerant flow rate control system utilizing a variable duty cycle to control both a compressor and a valve. Applicants respectfully submit that Jaster fails to teach or suggest modulating a capacity of a

compressor and a position of a valve much less modulating a capacity of a compressor and a position of a valve using the *same* variable duty cycle control signal and, therefore, respectfully submits that the combination of Yoshikawa, Nagatomo, and Jaster fails to teach or suggest the elements of independent Claims 35 and 51.

Jaster discloses a refrigeration system (10) including a compressor (12), a condenser (14), a phase separator (15), an expansion valve (16), and an evaporator coil (18). See Jaster at Col. 3, Ins. 30-35. The expansion valve (16) is a pulse width modulated solenoid valve that is controlled by a controller (26) based on a liquid level in the phase separator (15). See Jaster at Col. 3, Ins. 67-68, and Col. 4, Ins. 1-10. The controller (26) supplies the expansion valve (16) with a pulse width modulated control signal (32) to modulate the valve (16) between a fully-opened condition and a fully-closed condition to regulate an average flow through the expansion valve (16). See Jaster at Col. 4, Ins. 29-42. While Jaster discloses using a pulse width modulated control signal (32) to control an expansion valve (16), Jaster is completely silent with respect to using such a pulse width modulated control signal to modulate compressor capacity. Therefore, Applicants respectfully submit that Jaster is similarly deficient in teaching or suggesting using the same pulse width modulated control signal to control both a compressor and a valve.

In light of the foregoing, Applicants respectfully submit that independent Claims 35 and 51, as well as Claims 36-38, 40-50, and 52-69, respectively dependent therefrom, are in condition for allowance. Accordingly, reconsideration and withdrawal of the rejections is respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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